

In the Claims

Please cancel claims 23-52 without prejudice.

1. (Amended) A golf club head comprising:

three discrete segments including a heel being formed substantially entirely of a first dense metallic material, a toe being formed substantially entirely of a second dense metallic material, and a center segment being formed of a synthetic non-metallic material having a density substantially less than the metallic materials comprising said heel or said toe, said heel, toe and center segment being joined together; and

a strike face extending across one side of said heel, toe, and center segment, said synthetic non-metallic material comprising said center segment being homogenous substantially entirely along at least one plane perpendicular to said strike face.

13. (Amended) A golf club head comprising:

three discrete segments including a heel being formed substantially entirely of a first dense metallic material, a toe being formed substantially entirely of a second dense metallic material, and a center segment being formed of a synthetic non-metallic material having a density substantially less than the metallic materials comprising said heel or said toe, said heel, toe and center segment being joined together; and

a strike face extending across one side of said heel, toe, and center segment;

said non-metallic material comprising said center segment being homogenous substantially entirely along at least one plane perpendicular to said strike face,

*wherein* wherein the first and second metallic materials each comprise at least two metals, and  
the first and second metallic materials each have a final alloy density of at least 7 grams per  
cubic centimeter.

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Please add new claims 53-74 as follows.

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~~53.~~ A golf club head having a striking face and a back surface on generally a depthwise opposite side of the golf club head from the striking face, the golf club head having a substantially uniform depthwise construction from the striking face through to the back surface, the golf club head comprising:

a heel extending depthwise from the striking face to the back surface, the heel being formed of a first material having a first density;

a toe extending depthwise from the striking face to the back surface, the toe being formed of a second material having a second density; and

a center segment extending depthwise from the striking face to the back surface and being formed of a third material having a density less than the first density and the second density, the center segment having:

a first interface surface extending depthwise from the striking face to the back surface; and

a second interface surface opposite the first interface surface and extending depthwise from the striking face to the back surface,

wherein the heel is attached to the center segment at the first interface surface and the toe is attached to the center segment at the second interface surface.

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~~54.~~ The golf club head of claim ~~53~~ wherein said first material and said second material are the same material and said first density is the same as said second density.

~~3~~ 55. The golf club head of claim ~~53~~ wherein:

the first interface surface is planar and extends perpendicularly from the striking face to the rear surface; and

~~4~~ the second interface surface is planar and extends perpendicularly from the striking face to the rear surface.

~~4~~ 56. The golf club head of claim ~~53~~ wherein:

the toe includes a toe planar surface extending depthwise from the striking face to the back surface, the toe being attached to the center segment at the toe planar surface; and

the heel includes a heel planar surface extending depthwise from the striking face to the back surface, the heel being attached to the center segment at the heel planar surface.

~~5~~ 57. The golf club head of claim ~~53~~ wherein the strike face extends across one side of said heel, toe, and center segment, said third material of said center segment being homogenous substantially entirely along at least one plane perpendicular to said strike face.

~~6~~ 58. The golf club head of claim ~~53~~ wherein the third material of said center segment includes a polymeric material.

~~7~~ 59. The golf club head of claim ~~53~~ wherein the third material comprises a thermosetting polymer.

~~8~~  
60. The golf club head of claim ~~53~~ wherein said first material and said second material are metallic materials.

~~9~~  
61. The golf club head of claim ~~53~~ wherein:  
said first material and said second material are the same material and are both metallic materials; and

said third material of said center segment includes a polymeric material.

~~10~~  
62. The golf club head of claim ~~61~~ further comprising a chemical bonding agent bonding said heel to said center section and a chemical bonding agent bonding said toe to said center section along said first and second interface surfaces.

63. A golf club head comprising:  
three discrete segments including a heel being formed substantially entirely of a first dense metallic material, a toe being formed substantially entirely of a second dense metallic material, and a center segment being formed of a synthetic non-metallic material having a density substantially less than the metallic materials comprising said heel or said toe, said heel, toe and center segment being joined together; and

a strike face extending across one side of said heel, toe, and center segment, said non-metallic material comprising said center segment being homogenous substantially entirely along at least one plane perpendicular to said strike face,

wherein the strike face extends across the side of said heel such that the side of said heel extends from a bottom edge of the strike face to a top edge of the strike face, and the strike face extends across the side of said toe such that the side of said toe extends from the bottom edge to the top edge of the strike face.

64. The golf club head of claim 63 wherein the non-metallic material has a homogeneous composition.

65. The golf club head of claim 64 wherein the first and second metallic materials each comprise at least two metals, and the first and second metallic materials each have a final alloy density of at least 7 grams per cubic centimeter.

66. The golf club head of claim 65 wherein the first and second metallic materials each have a final alloy density of 7 to 13 grams per cubic centimeter.

67. The golf club head of claim 66 wherein the first and second metallic materials each have a final alloy density of 9 to 11 grams per cubic centimeter.

68. The golf club head of claim 67 wherein the first and second metallic materials each have a final alloy density of approximately 10 grams per cubic centimeter.

69. The golf club head of claim 65 wherein the first and second metallic materials each comprise a first metal dispersed in a matrix of a second metal, the first metal having a higher density than the second metal.

70. The golf club head of claim 69 wherein the first metal has a density of at least 10 grams per cubic centimeter, and the second metal is selected from the group consisting of iron based alloys, nickel based alloys, and copper based alloys.

71. The golf club head of claim 63 wherein the non-metallic material is an elastomer.

72. The golf club head of claim 71 wherein the elastomer is a thermoplastic elastomer selected from the group consisting of styrene co-polymers, co-polyesters, polyurethanes, polyamides, olefins and vulcanates.

73. The golf club head of claim 72 wherein the elastomer is a polyurethane.

74. The golf club head of claim 73 wherein the club head is selected from the group consisting of iron-type club heads, wood-type club heads and putter-type club heads.--